#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-026150

Address: 333 Burma Road **Date Inspected:** 22-Aug-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 Prime Contractor: American Bridge/Fluor Enterprises, a JV Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Jobsite

**CWI Name: CWI Present:** Yes No John Pagliero **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No **Delayed / Cancelled:** Yes N/A No

**Bridge No:** 34-0006 **Component: SAS OBG** 

## **Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

- 1. 11E PP101 E4 (Exterior)
- 2. 11E 12E D (Exterior)
- 3. 11E PP103 E4 (Exterior)
- 4. 11W 12W C (Exterior)
- 5. 4W PP25.3 (exterior)
- 6. 7W PP58 (Exterior)
- 1. 11E PP101 E4 (Exterior)

The QA inspector observed ABF welder Jorge Lopez ID# 6149 performing Shielded Metal Arc Welding (SMAW) in the 1G flat position on Lifting Lug Hole (LLH) #2 located at 11E PP101 E4. The QA inspector verified the fit up of the joint and found it to be satisfactory. The QA inspector observed the QC inspector identified as Fred Von Hoff monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-1050A-CU.

The parameters were recorded as (Amperes=135).

The QA inspector made subsequent observations throughout the shift to monitor quality and upon completion of the work the QA inspector observed QC perform a Visual Inspection (VT) on the weld and found no indications

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which the QA inspector verified and found the work to be visually acceptable.

The QA inspector noted that the work appeared to be in general conformance with the contract documents.

#### 2. 11E 12E D (Exterior)

The QA inspector randomly observed ABF welding operators James Zhen ID#6001 and Jin Pei Wang ID#7299 performing Flux Core Arc Welding with gas (FCAW-G) utilizing a "Bug-O" motorized rail system with a magnetic base attached in the 4G overhead position on the underside of side plate D, at 11E 12E of the OBG. The QA inspector observed the QC inspector identified as William Sherwood monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-3042B-1. The parameters were recorded as (A=251/V=24.7/TS=180/HI=2.06). The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

# 3. 11E PP103 E4 (Exterior)

The QA inspector observed ABF welder Jorge Lopez ID# 6149 performing SMAW in the 1G flat position on LLH #1 located at 11E PP103 E4. The QA inspector verified the fit up of the joint and found it to be satisfactory. The QA inspector observed the QC inspector identified as Fred Von Hoff monitoring the welding to ensure the welding parameters were in compliance pertaining to ABF-WPS-D15-1050A-CU. The parameters were recorded as (Amperes=133).

The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance with the contract documents.

#### 11W 12W E (Exterior)

The QA inspector randomly observed ABF welding operator Fred Kaddu ID#2188 performing Plasma Arc Cutting (PAC) utilizing a "Bug-O" motorized rail system with a magnetic base attached in the overhead position to remove the backing bar from the underside of side plate E, at 11W 12W on the exterior of the OBG. The QA Inspector observed the operator adjust the equipment in order to make consecutive passes to remove the backing bar and back gouge the weld. The QA inspector made subsequent observations throughout the shift to monitor quality control and noted that the work is in progress and appears to be in general conformance to the contract requirements.

#### 5. 4W PP25.3 (exterior)

The QA inspector observed F.W. Spencer welder Curtis Jump ID# 7326 performing SMAW in the 1G flat, 3G vertical and 4G overhead positions on 2.5 and 4 inch schedule 80 pipe located at 4W PP25.3. The QA inspector verified the fit up of the joint and found it to be satisfactory. The QA inspector observed the QC inspector identified as Steve Jensen monitoring the welding to ensure the welding parameters were in compliance pertaining to WPS-1-12-1 Revision 2 (1.12). The welder was observed implementing 6010 electrodes in the root pass with the balance using 7018 electrodes all of which in an uphill progression.

The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance with the contract documents.

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### 7W PP58 (Exterior)

The QA inspector observed F.W. Spencer welder Curtis Jump ID# 7326 performing SMAW in the 2F horizontal position on a PS 5 bracket located at W PP58. The QA inspector observed the QC inspector identified as Steve Jensen monitoring the welding to ensure the welding parameters were in compliance pertaining to WPS-FWS Fillets Murex SFOBB Revision 1. The welder was observed implementing E7018-H4R Murex electrodes. The QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance with the contract documents.

## **Summary of Conversations:**

At the beginning the shift the QA inspector met with QC inspector William Sherwood and discussed the welders assignments and locations for the shift to include pending issues, ongoing work and required testing.





#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer